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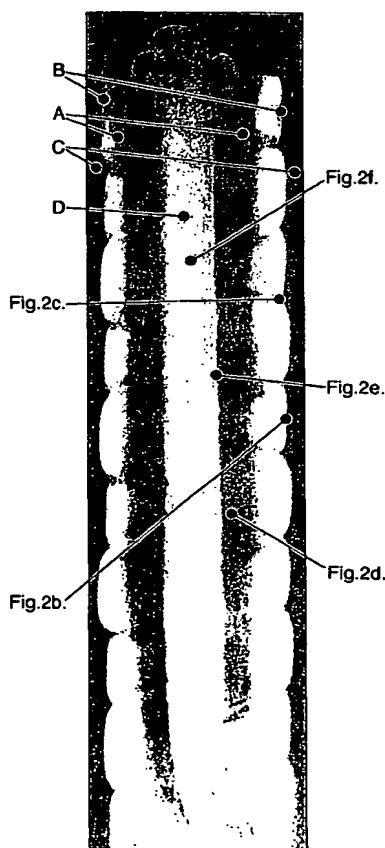
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(54) Title: WELDING METHOD



(57) Abstract: Two aluminium alloy work-pieces are welded together. Firstly, a por-
tion (2) of each work-piece (1) is prepared, the preparation including the performance
of a surface treatment, such as friction stir welding, that results in a region (A) ex-
tending from the exterior surface into the work-piece having a grain structure that is
finer than the grain structure of the work-piece outside (region C) that region. Then the
work-pieces are welded together by means of a fusion welding process, such as electron
beam welding, that joins the respective prepared portions (2) of the two work-pieces (1).
The preparation of the work-pieces is so performed that said region (A) extends into
the work-piece to a depth that exceeds the depth of material (region D) that is caused
to melt during the fusion welding process.

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